

METHOD AND APPARATUS FOR REDUCING POOL STARVATION
IN A SHARED MEMORY SWITCH

ABSTRACT OF THE DISCLOSURE

5 A switch includes a reserved pool of buffers in a shared memory. The reserved
pool of buffers is reserved for exclusive use by an egress port. The switch includes pool
select logic which selects a free buffer from the reserved pool for storing data received
from an ingress port to be forwarded to the egress port. The shared memory also
includes a shared pool of buffers. The shared pool of buffers is shared by a plurality of
10 egress ports. The pool select logic selects a free buffer in the shared pool upon detecting
no free buffer in the reserved pool. The shared memory may also include a multicast
pool of buffers. The multicast pool of buffers is shared by a plurality of egress ports.
The pool select logic selects a free buffer in the multicast pool upon detecting an IP
Multicast data packet received from an ingress port.

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